Naval Historical Center
Oral Interview Summary Form

Interviewers:
Capt Gary Hall
CDR Carol O'Hagan
YNCS(AW) Kathleen Wright

Interviewer's Organization:
Naval Historical Center
Naval Historical Center
Naval Historical Center

Interviewee:
Capt Douglas M. Arendt, USN

Current Address:
████████████████████
████████████

(w) Armed Forces Institute of Pathology
Maxillofacial Pathology and Forensics

Date of Interview:
01 Mar 2002

Place of Interview:
AFIP

Number of Cassettes:
One

Security Classification:
Unclassified

Name of Project: Pentagon Terrorist Attack Incident

Subject Terms/Key Words: Pentagon; Terrorist Attack; 11 September 2001; AFIP; Dover Mortuary; Medical Examiner

Abstract of Interview:

Interviewee Information: Capt Arendt's grandfather developed the diesel engines for U.S. submarines during World War II at Columbia University. Capt Arendt is an Army brat and grew up all over the world, including Japan and Thailand. When he finished a year of graduate school he had no money so he applied for a scholarship. After 1-½ years of dental school at the Medical College of Virginia he picked up a Dental School Scholarship through the Navy. He graduated from Medical College of Virginia with a DDS. He spent his first year at Parris Island on a rotating internship with the Marines. He then did two years on a helicopter carrier. His commitment was up but he picked up a 5-year residency in Maxillofacial Head and Neck Pathology. He performed his residency at Naval Hospital Bethesda, Georgetown University and AFIP. He then spent two years at a research institute. At the 10-year mark he went to Balboa in San Diego where he spent the next 8 years. He then returned to Washington, D.C. spending 3 years at Bethesda Naval Hospital and the last seven years at AFIP.

Topics Discussed:

At AFIP his work is a balance between diagnostic consultative head and neck surgical pathology. He is the Chief of Forensic Odontology using his background as a dentist. He coordinates the identification activities that use dental or cranial-facial identification. During the Pentagon mishap their role was to deploy their medical examiner team.   That team consisted of medical examiners, odontologists, anthropologists, DNA experts and associated support staff such as the photographers.

On 11 Sep he heard a plane had hit the World Trade Center. They were watching the television when the second plane hit. They then heard about the Pentagon and Somerset (the plane that crashed in Pennsylvania) and knew they were going to be activated.

Capt Arendt's role at Dover was to coordinate the ante mortem and comparison teams. They had been looking at what was happening on the civilian side as far as the change in technology using digitized film and x-ray machines. They showed they could use the technology of hooking up the x-ray machines to digital on small missions. In Jan 01 they had a brainwashing session at Dover with AMC to compare the military to civilian capabilities. They found out they weren't really using Windows based computer software and ordered quite a bit of computer equipment and sensors. Ironically all that equipment came in a week before 11 Sep. When the event occurred all that was still in containers. They needed to decide would they approach the 11 Sep in the conventional way using standard x-ray tube heads and developing film by emulsion and laying out the films on hundreds of tables to make comparisons or push the envelope and be risk takers. They made a decision to push the envelope and be very computer oriented.

Everything was in boxes, but they were able to put together a good computer strike team. As the bodies were coming in they were putting together the computer systems. They decided to give themselves a time limit to see if it would work or if they would need to go back to the old system. The beauty of the system is to be able to compare dental files on the computer rather than paper. As the records came in they generated computer records and put them on the computer. They were eventually able to take the ante mortem and postmortem records and, with computer algorithms, develop high priority sorts to tell them which bodies to check.

The challenge was to try to get the records on 180 people and the bodies at the same time. They would have records on people who hadn't been found and bodies with no records. Once they had all the information they started generating identifications at a good rate.

They used three digital sensors and set up nine computers where they could do ante mortem entry, postmortem entry, comparisons and generate reports. They bumped it up to a degree that hadn't been tested before. They kept in close contact with their computer team.

The civilian side had been using a Windows-based WIN-ID system, while the military had been using a DOS-based system. The problem was that while you generate text comparisons you cannot compare graphically. When they instituted this Windows-based system they were able to compare graphical images between the civilian records and the new Windows-based records. They actually were able to link the pictures. The computers will allow them to interface, not only within their own dental identification records, but allow civilian dentists and doctors to send them their records instantly rather than by mail.

About 60% of the remains were identified by dental alone. If you can have more than one identification modality the better.

It's important that the military and civilian use a standard format that can talk to each other to allow for comparison.

A Chief Butler from AFIP headed the computer strike team up. On site the 436th gave them a civilian contractor and two Air Force people. The other computer cadre who was entering the data was all military dental officers who were selected for their backgrounds.

Abstracted by:
CDR Carol O'Hagan
8 Mar 02

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At AFIP his work is a balance between diagnostic consultative head and neck surgical pathology. He is the Chief of Forensic Odontology using his background as a dentist. He coordinates the identification activities that use dental or cranial-facial identification.

(The interviewee launches his story before anyone asks a question.)

A. During the Pentagon mishap their role was to deploy their medical examiner team. That team consisted of medical examiners, odontologists, anthropologists, DNA experts and associated support staff such as the photographers. So as a team we went.

On 11 Sept we were actually in Surgical Sign-out at the time. We heard that a plane had hit the World Trade Center. Right off the bat somebody somehow came up with a little black and white TV and we started watching that, and then we realized as time went on the second plane hit and then we knew we were going to be activated I'm sure in some fashion. Then the Pentagon force mishap and then we heard about Somerset.

But subsequent to that initial awareness we began to put together our teams and then of course the planners higher up began to consider what level would we be involved. Whether it's just the ACME 4 Team, medical examiner or we're going to bring in the other services and so forth. So the ball got rolling. Well, my role at Dover in this particular operation was to coordinate the anti-mortem and the comparison teams.

Let me kind of set the stage for you here for a second. Since you guys are in a high stress situation as civilians at Booz Allen, the military for the last five years has kind of like been like Avis and Hertz. Don't quote me on some of this please. And that is that we've been looking at our counterparts that have been called upon to handle civilian mishaps. Such as the KAL which I was involved with the DEMOR team or a myriad of others from Swiss Air, or Egypt Air and so forth, and the technology has been changing where we're bringing in, for instance, digitized x-ray, digitized couplers, or film along with, you know, changes in x-ray machines, and so forth.

We've been looking at what's happening on the civilian side in that industry and at the same time we're thinking, are we up to par with our civilian counterparts?

Well, some of the mission that we've been at with this institute, smaller missions, like I went to Grenada, or Serbia or even some of the Osprey mishaps, we've had the opportunity of taking some of this new technology. Namely the, basically the little digitized film scanners, the coupling devices, that we link up to our x-ray machines, which allows us to capture an x-ray image of a tooth or a skull fragment or a jaw fragment that we may need to use as a reference point to compare before death stuff.

So as we showed we could do this on small missions, the question came up, could we do this at some point at Dover where we have our tri-service port mortuary? Well, ironically enough, I think it was January of '01, we had a brainstorming session with the 436th medical and dental folks at Dover and a great deal of credit really needs to go to them, because they have the responsibility both fiscally and financially to make sure that that mortuary is actually stocked. AMC does that.

Well at the planning session we kind of looked at what our civilian counterparts had out in their industry and what we had in the military and we basically came to the conclusion that we had old fashioned x-ray machines for dental visual capture. We really didn't have any, weren't utilizing really any computer software that was sort of Windows based as opposed to DOS based. We had a DOS based program that kind of crunched out these very simple charting comparisons that suggested these were positive identifications. But we knew there were some better things out there.

So we thought ahead and essentially ordered quite a bit of computer equipment, some sensors and other things like that. Well, ironically all that stuff came in a week or so before September

11th. So when the event actually occurred, everything was still in containers. So once we got up there a decision had to be made, were we going to approach the dental identification essentially in the old conventional way, using standard x-ray tube heads, developing the film by emulsion, which is a very slow process, and were we going to lay out all, for instance, before death, or the anti-mortem films on hundreds of tables, which takes hours and hours to go around and make comparisons, or are we going to kind of push the envelope and be risk takers, like some computer company might do?

Well luckily, [CAPT] WAGNER, our skipper here asked the question and we made a calculated decision at that point in time, let's go ahead and push the envelope and be very computer oriented. Well, the problem is, the challenge, everything was in boxes, crates. Luckily we were able to put together a good computer strike team. So actually, as the bodies were coming in, we were taking computers out. Laying cathide (phonetic) wire and thinking through some of the computer protocols that had been done on a small scale. How could we pump it up on a large scale?

A good example of some of that stuff would be like, you know, could we use each computer system we set up to do various taskings, alone or could we network it all to a primary server? We didn't have answers to these questions. So the bottom line was, kind of to give, maybe, don't quote me on this, about thirty-six hours to show if this would work, or basically go back to the old fashioned method, which was not using digital sensors, and not using computers.

Well, the beauty, and if you come to the I course, is the first day, you'll understand it more, is that rather then when you're capturing the dental images on the deceased which you make the comparisons with on film, if you could do it digitally, then we could send that image back and

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link it onto the computer so ultimately we could compare computer files rather than paper and x-ray files by holding things up and going around the tables.

Well, obviously since we weren't prepared in the sense that we hadn't had it set up, we didn't have a LAN setup or anything like that so we had a Sneaker Net let us capture the images, have a runner take them on the CD, quickly developed and have them, you know, do a QA to assure that these images indeed reflected what was on that individual, and so forth.

And at the same time, then, as the records came in, our folks would generate these computer records entered into the computer, and then eventually we were able to take the anti-mortem and post mortem records and through computer algorithms basically develop high priority sorts. So, you know, check body this with record that, and if everything's working right, it's a great deal of, a great deal of time is actually saved.

The challenge though is that in a mishap of this size, trying to get the records on a hundred and eighty-nine people and trying to get all the bodies made at the same time, is just about impossible. And so we would have records on individuals that hadn't been found, or we would actually have bodies and then no records. So obviously the pressure was—was it our computer protocols that weren't working? Or was it that we didn't have the right material?

Well, everything was working fine for us, it's just we didn't have the information. Once we had that, we really started generating identifications at a pretty good rate. But the big challenge was to take that risk and somehow make it come together in a useable form.

And I guess, back up for a second, a good example is when we did the KAL crash in Guam. We had one computer system. We used WIN ID software, which was Windows based in an old fashioned type of x-ray tube head for the hundred and, hundred and eighty-five bodies. Whatever we had, I forgot on Guam.

Good example of that, at the, I think it was at the Swiss Air, again they had one digital sensor, one x-ray machine and then one use of a computer of WIN ID software. In this particular operation we used three digital bays, three digital sensors and set up nine computers that were redundant. That we could actually do anti-mortem entry, post mortem entry, comparisons and generate reports. But again we bumped it up to such a degree that it had never been tested before. So my hat really goes off to the computer strike team. Some of the programmers that I could call on a whim if the software would crash because our files were too big, or whatever glitches occurred. We were in very, very close contact with them and I personally think that from a mass disaster triage, computer enabled system, it was probably the most successful operation to date once we had the information. Now the folks up in New York, good example, please don't quote me on this, they were reluctant to go with digital sensors and using WIN ID, because they felt it hadn't been tested. So we were lucky enough to be able to test it. On the negative side, however, I think, there was some concern that we didn't want this to be looked upon as a laboratory exercise. Don't quote me on that.

But I think it's important, it's an important balance to be able to push the envelope, especially in the military, where this forensic arena is a really big responsibility for us. Not that we're in competition with our civilian counterparts, but we ought to at least be on the same footing. Along that same line, the industry on the civilian side has been using WIN ID, which is a software program, it's an access program that allows you to do these comparison algorithms. We had been using a DOS based system called CAPM Computer Associated Post Mortem Identification, Computer Assisted. The problem with that, and I'll show you this graphically is that while you may generate kind of text-like comparison, you know, produce odonagrams (phonetic), where you kind of see a diagram of what the charting might be like, which a dentist

might produce. The beauty of what we were able to do with the WIN ID program is we had GUI (phonetic) interfaces that allow us to take graphical images, the x-rays, or clinical pictures. You could use DNA, STR Spikes, anything you want and then as you look through the files, we'd look at John or Jane Doe, the computer would suggest a top five priorities and then we could literally just go through and make the comparisons visually. Rather then looking at a diagram, we could actually link the actual pictures. Which is far better then going to files.

Now obviously the challenge would be that if you have a lot of fragment of remains, then you know, it makes it a little more difficult. If you have good material you can do that.

The other beautiful thing is that in the old days we might generate a summary form that the medical examiner would sign and we would sign and say to a loved one, "Your identification was based on the findings of this and this." Before death and after death findings, and this is a positive dental identification.

Well, reading something may leave something to be desired, but in court or if you're a loved one and you can actually show them, I know this sounds a little bit harsh, but you can actually show them the dental films that the dentist might have in their files, civilian and military, and then actually show that on a final report, what we actually had, this is kind of a composite of everything on this particular body. This is everything before death, and you can actually make those positive comparisons. It goes a lot farther if you're in a jury situation where if you're trying to explain something, this really was your loved one. That's one thing we can also do, and I can give you some examples of that later on, but I think that the beauty is that the computers are going to allow us to interface, not only within, I think, our little area of dental identification, but ultimately, more and more civilian dentists and military are using digital types of sensors. They

can send us that information in a matter of seconds, rather then waiting for FedEx or something along that line.

So I guess in a nutshell what we did was to kind of basically push the envelope that showed that computer enhancement can certainly assist triage in dental identification, you know, and there are some pros and cons on, I don't know how much you want me to go into it, but that's kind of it in a nutshell, I guess.

Let me show you something else. Now there's actually an article that you may want to pull out. I think it was the October 2001 AFIP newsletter, and that entire newsletter is dedicated to all –

Q. (17:23) We have that.

A. You have that. All the different disciplines that actually did this and it's a pretty good write-up in there, but again I really have to give a great deal of thanks to the AMC who funded the equipment we were able to purchase and also to LTC BEECHER who was the Dental Officer who really pushed through a number of challenges to make sure this stuff was actually funded. Then—thank God she was able to do that— because then we were able to actually uncrate it, and utilize the stuff. So it's a, it was a bit nerve wracking the first couple of days, but you know, we pushed the envelope. We were very successful, I think thanks to a great deal of number of people. We had some folks that were computer literate that we started off as support team and then as we moved on into, you know, days four, five and six, we started buddying up and then training our relief after seven days, and so forth. So it's definitely doable.

Q. (18:19) What percentage of remains were identified through dental?

A. I don't have those exact numbers but as I recall, just dental alone, we might have had sixty, sixty-five dental plus other things, like dental plus DNA. I think well over a hundred were definitely dental, but dental alone might have only been like sixty-five and we certainly— and that's a very good point, you know, if you can have more then one identification modality, whether it's dental or fingerprints, or DNA, personal effects, the more you have the better.

Q. (18:57) Is that true for the process, that I mean if, I don't know, say you've got a fingerprint verification and you had some teeth, so you would still use, you would still do both?

A. We tried to. We definitely tried to in this arena. The more you have the better, and a good example of that is, and I don't want to be quoted on this, if that's clear. The most recent KC130 crash, and we weren't able to get DNA and we didn't have personal effects on a couple of the bodies, and please don't –

Q. (19:32) You want me -?

A. Yeah, pause that.

Brief break

Q. (19:37) Do you have good digital dental records on everybody?

A. That's a good question. Currently I don't know how many commands have digital capability and how many of their records are actually in an electronic format. I don't know that. I do believe at least, as specialty leader for the Navy side that this is an area that everybody's striving to get toward to have an electronic patient record. That will certainly be a big help from the standpoint of time and efficiency in the future. Now whether the military decides to go with a

WIN ID type software program, which is on the civilian side, or whether the CACS system is developing their own electronic system for charting on the dental side, I don't know the answer. I know they're looking at that right now. My only voice of concern would be that I think it's very important that both the military and the civilians use a standard format, if possible, that can talk to each other, because whether it's the Pentagon or any other mishap, you may have military and civilian members and you may then have military and civilian team members. So you want to be able to use the same type of format and program for both.

That was one reason why I was very happy we were using the WIN ID. That's what our civilian counterparts use. CACS, whether that's going to be able to incorporate the access type program, I don't know, but the only recommendation I'd make to the programmers in that regard would be make sure whether it's an x-ray, that it's DICOM compliant so you don't have a proprietary software, whether it's GENDEX (phonetic) or SWISS (phonetic) or SHICK (phonetic), that those images can be sent to various places and the electronic files, or text files can be sent. So that's important that whoever the planners are they do that, a standard format.

Answer your question?

Q, (21:39) On your computer strike team, what was the composition of the team? Government, contractors, military, mish-mash of everybody?

A. Good question. I wish I had the article in front of me. What we did there is, from AFIP, we brought one of our tele-medicine, it was Chief, CHIEF BUTLER, not sure if you've met him or not. We brought CHIEF BUTLER whose background is—he's actually a histotech, but his background now is essentially in programming and support to tele-medicine. Then on site, the 436th gave us a civilian contractor. I think it was DOUG ALSLEY (phonetic) was his name and

then two military folks, two Air Force folks and basically they helped us, you know, break out

the boxes, run the Cat (phonetic) Fob (phonetic) wire. And then working with them we began to

work through the software issues and protocols, you know. If this is crashing, why? And so

strike team was a mix. The other computer cadre that basically were the ones that were entering

the data and massaging the data, they were all military. They were dental officers that we had

kind of selected out right from the get-go, knowing their backgrounds, four or five of them and

those were the ones that we used initially.

Q. (22:50) You were at Dover? How long were you at Dover for the Pentagon?

A. From the beginning to the end. Not sure how many days it was, so from, whenever we started

until whenever we finished. So.

Q. (23:06) 'Til October, middle of October?

A. You know, I don't really remember. I had just come back from Serbia and had a mission in

Serbia and I think I was back two weeks and then we had this, and it's a blur. I really don't

know. I guess, I think the 10th of October. I don't know. I'm really not sure.

And whatever we didn't finish up there, we brought some of the files back here and stuff was

brought, you know, done later on. But it's a blur. I really don't know the dates.

Q. (23:34) Were you the certifying official for the dental ID?

A. There were actually three of us that would do it. We would have the individuals that

generated the positive ID and then I would certify it as the team leader and then we'd have an

overall dental team leader, which was COLONEL PEMBLE, certify it.

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For instance like in this particular example, the team member you'd want to give credit for, and then we'd have the team leader for anymore of a comparison, I would do that, and we'd have the overall person providing oversight, the final sign off. So three sets of odds (phonetic) (24:06)

Q. (24:07) Did you, from the civilians, was there, was there pretty good anti-mortem information, or no? Do you have a feel for that? You don't have your records, but –
A. I think overall, I would say, the protocol on the military side facilitated easier generation of anti-mortem reference records then our counterparts in the civilian side. Some were excellent. Some were a little more challenging. Some had digital stuff they could send us. Some didn't, but it was adequate, but I think it wasn't quite as standardized as we do in the military. Lack of protocol. Civilian records were a little harder to get a hold of. That was to be expected. I think part of it on that side is that you probably didn't know who your civilian casualties were as readily as you did on military side.
You were able to get your roster based on who was at the Pentagon so that was a little more challenging.

Q. (25:15) Was the kind of information that you produced from these reports, would that information be available to the families if they wanted?
A. Absolutely, and that was one of the whole reasons that we actually did it in this sort of pictorial format.

Q. (25:26) And who, who actually presents that to, presents that to the family.

A. Well, we try to have a, it was called Family Assistance Center, and so that would probably go

via the Family Assistance Center, or a PAO or something like that, and obviously they probably

wouldn't just show them that. I would hope that what they would do would be sit down and

discuss with the member that, "We have your loved-one, and identification was based,

identification was made," and I would assume in that interview that if the individual asked how,

that they would at least produce, you know, how. Depending on how much information that

member would want, but I can't answer that question. Somebody in the Family Assistance center

would probably have to do that.

Q. (26:08) But not necessarily a medical person?

A. No,

Q. (26:13) To see this –

A. May not mean a lot, you know.

Q. (26:16) But you didn't you didn't have to get -?

A. No, we tried to stay out of that.

Q. ((26:23) Did they show them your name though? (chuckle) _____(26:24)

A. Probably do, I mean, it's interesting you asked that. I mean the counterpart to that is on a

surgical pathology side, when we sign a pathology report and we say the tumor is so and so, we

do occasionally do get calls from family and make every effort if they really want to know to sit

down and actually, if we have to, go over the case and even show them tumor cells and so forth.

So you know, usually we're kind of behind the scenes but it's, it is special when you have that. If that opportunity comes up, to be able to do that, so it's not a problem.

Q. (26:56) How do you fit that into your schedule, sir?

A. It's tough. It's tough. It's hard, but you know, you try to do it.

Q. (27:10) So, what, since October what have you done since then. I mean has there been some follow-up on this incident or you just to other crises that arrive.

A. Well, let's see, what is this? This is February. We obviously have a roster. We have a call roster and it rotates depending on who is on what month, which we'll go to. I'm trying to think. I know since then we've had a couple of aviation mishaps that our teams have been involved in. I was most recently involved in this Chungse (phonetic) mishaps in Pakistan, brought it to Dover. So that one comes up. But in addition to that obviously we're doing other things too. We're trying to educate military and civilian members about one of our roles such as forensic identification. This course comes up in two weeks and the day after that course is over, I fly to the West Coast to put on a course in Seattle and the next day back to San Diego. So, it's busy. So we're been involved in that and then we're also involved in the daily surgical pathology types of cases we get here.

Every morning we come in at six, six-thirty and look through the cases on our microscope and then basically discuss the cases and render diagnosis, these that we send back to our consultants. So the forensic from a standpoint of dental identification is when we're called upon and tasked to do it, unless of course, we're doing continual education.

Our medical, and we do medical legal cases as well. You may have seen some of the INS editorials on age assessment with some of the immigrants. We do get involved in that. We're trying to help set the standard on the proper protocols to render age assessment. We get involved in some of the sexual assault, medical legal cases. Somebody is raped or murdered and there are pattern injuries, such as a bite marks, we may get called into an emergency room to try to capture those images and then render legal testimony. So there are a lot of different medical legal type of things that, at least the dental discipline can get involved in. As well as our medical colleagues, obviously, the Medical Examiners office. So it's a, it's a sixty, seventy hour a week job, easy.

Q. (29:18) How many are on staff with you?

A. We have Board of Oral Pathologists. We have (he's mutter these names while figuring how many) HUMBOLD, ART, THALIS, CHILLERS, TORSQUE, WILLIAMS (all but last name is phonetic) Six Board of Oral Pathologists and I'm the only one that's double boarded in Oral Path and Forensics. So there's six of us and we're busy, whether it's surgical path or forensics, or education.

Have they given you the AFIP coins? They should give you an AFIP coin, because on the back of that I think it has our logo which is "Consultation," "Education," and I guess it's "Research." Make sure you get a couple of coins.

Q. (29:56) Yes, that's certainly multiple discipline. Did you, have you, did you put together a report from the Dover experience? The success of raising the bar, taking the risk?

A. I think in that actual October newsletter that pretty much addresses it there. There will be some follow-on lectures, talking about that. I know in Chicago next year, we'll be doing a couple

hour lecture, talking about "Noble Eagle," and in fact at the lecture I'll be giving that morning, I'll talk basically, a fair amount of time about how we kind of approached it. Rather then using that as the podium for how you make an identification, because a lot of that's just too recent and too graphic, we'll use the Pentagon mishap to talk about, you know, better ways, lessons learned, computer approach. Then again the lessons learned in the position paper that will come of that, we'll talk about things like. You know, could we have made our computers more robust? Could our scanners have been more robust? Could we have had more scanners? Could it have been laid out better?

I mean, a good example is the space we were given was actually the shell of an old whole body radiography area that was full of trash when we got there. No slam-dunk against Port Mortuary, but that was a fact of life. We were looking for a corner and we found a corner and so we just moved out the trash and basically utilized that shell and set up a computer system and really incredible.

As I told GENERAL CARLTON when he came through, or somebody, I said, you know, had these been civilians and what they had done, they probably all would have gotten a hundred thousand dollar bonus. Because it really is incredible what they were able to accomplish. I mean it's just incredible.

There are, will be other papers coming out on this that kind of address the computer lessons learned as well as I'm sure some of the other logistical lessons learned, but again my focus was primarily the dental ID and I can't really address the DNA, or the medical examiner or the anthropology, or even the whole flow of patients through that port mortuary. That will probably have to come through Captain Wagner, and I'm sure he's working on that at this point in time.

Q. (32:15) Is this, is this or would this be your preferred methodology for all future crisis situations?

A. Computers?

Q. (32:24) Yes,

A. Absolutely. There's not question in my mind. I mean we would be doing a disservice if we didn't continue to build on what we have here now. To take a step backwards would be ludicrous. We need to build from this. We need to make sure we integrate with our civilian colleagues, you know, absolutely. Feel very passionately about that.

Q. (32:51) And you said, what's next for you?

A. Good question, you know. Five sons, three of them are out of the house. Had two wives, don't quote me on that. You'd think I would learn to have a little more time for them and I think perhaps the follow on and kind of a epiphany to 911 was I discovered I really did have a little more time in the evening and not bring home position papers or lectures. Learn how to say no and so, I think my discovery was the six, seven weeks after that, I really had some quality time with my kids. Not always feeling like I had other pressing issues, and I really made a point of that, and it was a real breath of fresh air for them and for me, and so that pretty much solidified, I knew that I love working hard, and I love what I'm doing. Whether it's Surg Path or teaching or forensics. But it's like a malignancy. It's just takes over, and because I can't say no and I'm addicted to being a hard charger, that was the only way I could really see to do it, was just kind of bail. So, I'm not sure what I'll really do professionally. I'm starting to float resumes when I have time to float them. But I've kind of promised my wife who's a fellow professional that, you

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know, the kids will be able to catch the bus next year, and you know, I'll really think before I start signing on the dotted line. So we'll really see if I'm worth anything and they have to really pay me for what I do. So I don't know. We'll just have to wait and see, but I'm looking forward to it.

Q. (34:32) Is there any other thing we should have asked you or something you want to say for the historical records, that we can quote you on? (chuckle)

A. Other then the fact that I think you just have a wonderful bunch of talent in the military and my experience is they tend to not know when to say no, and they just give their all, and that's a real plus I think for the types of work we do for the people on the other end. They really work hard, very hard.

Please, if at all possible, try to come to the course, because, at least for part of it, because it will give you, I think, a very good picture on some of the things that we do do, if you're not familiar with forensics. I mean you probably watch CSI, or Cross Jordan, and that's a little Hollywoodish, but if you look through some of the different titles here, I mean, the lecture that follows me is from CILHI (Central Identification Laboratory, Hawaii) and he'll be talking about some of the CILHI missions and then our medical examiner will talk after that. Then BARBARA TREG (phonetic) will talk about some of the child abuse issues. Then I think the second day we start getting into some of the disciplines like anthropology and then we start getting into some of the organizations that we interact with in TSB. You know CGIS and NCIC, which is the, you know, really involved in missing persons and stuff. So it's, I think it's a great course. You know, so if you can come to any of it or part of it, let me know and I'll make sure that you guys are welcome. It's right at the Hyatt, right on the metro so.

Q. (36:06) You were saying that connecting the computer systems for the comparisons, were all the other disciplines computer driven, and networked also in the civilian world. Are we behind?

A. No.

Q. (36:16) Are the military behind the power curve on being up with our civilian counterparts?

A. I think that the military is very much aware that information sharing between different disciplines is really important and they're working toward that. Our civilian counterparts the DEMORT teams, at the current time are using some programs that are sharing information a little bit better then we are, and I think they've given us the charge to make sure that we are at least compatible with them and working toward that.

You know, it's very important that if I know somebody in fingerprints has a possible ID on a certain body, it's so much more efficient to have that flag that might allow me to go toward that particular set of records sooner then I might have. Before I went, so I could get some computer comparisons so.

Yes, I think the answer to that is they're aware of that and they're working that in toward the plans for the future, Tri–service Port Mortuary. I won't be a part of that, but my hat goes off to them so I think they're working toward that.

Q. (37:39) They're building a new mortuary.

A. They are, they are and CAPT WAGNER and COLONEL PEMBLE and folks like that are one that planning team and they can address that part better then I can.

Q. (37:47) And how's the interface with the civilian side? Not just inter-service, but also with the plan, is that -?

A. As far as?

Q. (37:54) Well sharing information. Using compatible information.

A. I think for the most part there are a number of civilian organizations such as the American Academy of Forensic Sciences and that's an umbrella organization that has all the forensic disciplines as part of it. And within that organization you have both civilian and military members that, you know, can work up to various levels of, you know, from member to fellow to board, so there's a lot of interplay professionally within that organization.

I cannot answer the question, do we have a team that is actually bringing civilians to the table to discuss standardization in software? I don't know the answer to that. My recommendation is they should. That's a problem we have that we addressed in KAL crash in Guam and in fact if you want you can get the *Dental Public (phonetic) in North America,* most recent one and we discuss that issue of, we change from one computer program to another computer program, back to the first computer program during that evolution. How would that happen, and why would that happen? Well it did and we kind of address that. So those are the kind of things we want to make sure that we do have the same platforms.

I'm not saying that WIN ID is better then a CACS System or an SAIC generated software, but I am saying, that you know, whether it's graphics or whether it's computer algorithms for identification, we've got to talking to a computer (_____Inaudible 39:21) It's a good question.

Q. Well great, we thank you for taking time out of your busy schedule to meet with us.

A. OK, sure.

Transcribed by :
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July 19, 2002